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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/760,017	01/12/2001	Michel Le Hir	60,130-984	2860

26096 7590 04/07/2006

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ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 04/07/2006

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/760,017
Filing Date: January 12, 2001
Appellants: HIR ET AL.

Karin H. Butchko

Carlson, Gaskey, & Olds PC

For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 2/7/2006 appealing from the Office action mailed 10/11/2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

Copies of the court or Board decisions identified in the Related Appeals and Interferences section of this examiner's answer are provided in the file wrapper as BPAI Decision, dated 03/04/2005.

The Board of Appeals and Interferences reversed the examiner's Final Rejection, on dated 12/17/2002, of the pending claims over Schechinger (FR 2663798) because it failed to disclose a commutator having a magnetic ring attached to an outer surface of the commutator with the outer surface being opposite to the inner surface of the commutator that is mounted on the shaft as recited in claim 1. The Application was remanded to the examiner to consider Japanese reference 11-308,812 and German reference 198 11 424 as showing the magnet on the outer surface of the commutator. The current rejection is based on Takeda because it shows all the claim limitations as 35 USC 102(b) statutory bar, including the gearbox and worm on the rotor shaft, which are not shown in the Japanese and German references.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

The following is a listing of the evidence (e.g., patents, publications, Official Notice, and admitted prior art) relied upon in the rejection of claims under appeal.

Patent Number	Inventor	Publication Date
GB 2289351	Takeda et al.	11/15/1995
US 5565721	Knappe	10/15/1996

(9) Grounds of Rejection

The following grounds of rejection are applicable to the appealed claims:

1. Claims 1, 4, 8, and 9 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Takeda et al. (Takeda)(GB 2289351). Takeda teaches a rotor provided

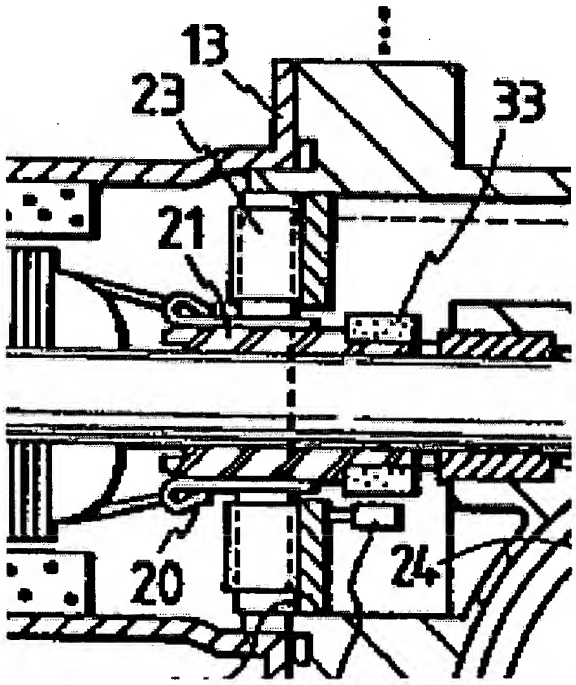
with a rotor shaft bearing a commutator including a body 21 having an inner surface mounted on said shaft 17 and an opposing outer surface, and a reduction gearbox 11 containing a gearwheel engaged with a worm 24 of said shaft 17, and a magnetic ring 33 mounted on said shaft in order that a number of rotations of said shaft can be counted, and wherein said magnetic ring is attached on said outer surface of said body of said commutator 21. The magnet 33 is housed in an annular recess on the end of the commutator 21 that is free of hooks. Takeda teaches the magnet is fastened around the shaft by the collar 21, which inherently must include an attachment feature to "fasten" the magnet; collar, and shaft together.

2. Claims 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al. (Takeda)(GB 2289351) in further view of Knappe (US 5565721). Takeda teaches every aspect of the invention except an elastic clip to attach the magnet to the commutator. Knappe teaches an elastic clip 41 to secured the magnet 3 to the shaft 2 by the body 4 to secure the magnet without undue pressure and stress to the magnet (col. 2, line 25). It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the motor of Takeda with the magnet secured by an elastic clip to axially and tangentially secure the magnet to the shaft without undue pressure or stress on the magnet, as taught by Knappe.

(10) Response to Argument

Claims 1 and 8

Appellant's argument that Takeda's teaching of a commutator 20 on a tubular collar 21 does not read upon the Appellant's claimed "commutator including a body with an inner surface mounted on the shaft and an opposing outer surface" is not persuasive. Takeda reads directly on the Claim 1, line 3, "said commutator including a body having an inner surface mounted on the rotor shaft and an opposing outer surface." Takeda clearly shows the commutator 20 including a body 21 mounted on the shaft 17, and including a magnet 33 mounted in a recess on the outer surface of the body 21 (see figure 1, below). Also, Takeda (page 9, line 1) teaches "A tubular collar having a commutator 20 thereon is fastened to the rotating shaft 17". It is clear that the tubular collar 21 Takeda is the "body" included in the commutator set for in Claim 1.



Prior Art (Takeda) Figure 1

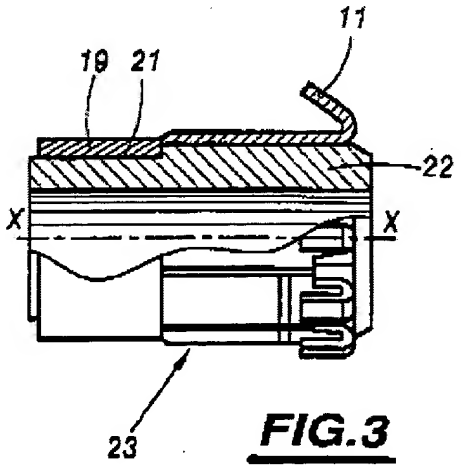


FIG.3

Applicant's claimed invention

The Appellant's argument is confusing regarding Takeda's reference number 20 (a commutator) with the limitations recited claimed in Claim 1, which is not limited to a commutator but includes the body supporting the commutator. Particularly, the Appellant's specification, page 3, lines 21-25, recites "the magnet ring 19 is housed in an annular recess 21 which is on the body 22 of the commutator 23". While the Appellant and Takeda may refer to parts with different terms (as they are their own lexicographer), there is clearly a direct correlation between the Appellant's body 22 and Takeda's the tubular body 22, the Appellant's magnet 19 and Takeda's magnet 33, and the Appellant's commutating plates with hooks 11 and Takeda commutator plates with hooks 20.

The Appellant's confusion regarding the commutator is shown in their argument that Takeda teaches the magnet sensor being on one end of the tubular collar 21 and the commutator being on the other end. The Appellant's position is correct and claimed by the Appellant in claim 8. The Appellants hooks 11 connecting the commutator to the rotor coils are on the opposite end of the commutator body as the magnet. Takeda shows this limitation in figure 1, reference number 20 points to the hooks on the commutator connecting the rotor coils to the commutator, where the hooks are on the opposite end of the commutator body 21 as the magnet 33. The Appellant's argument regarding the space between the collar 21 and the commutator 20 is not supported by Takeda figure 1, nor is it understood to be relevant to the claimed invention.

The rejection is proper and should be maintained.

Claim 4

Appellant's argument that the tubular collar 21 is not part of the commutator is not persuasive for the reason recited above. The Appellant's argument that the commutator of Takeda does not include an annular recess on the end of the commutator is not persuasive. The ring magnet 33 of Takeda is shown positioned in an annular recess on the outer surface of the tubular collar 21 (see figure 1 above). The recess of Takeda figure 1 is the same recess as the Appellants annular recess 21. The rejection is proper and should be maintained.

Claim 9

Appellant's argument that the magnet sensor is not attached to the commutator is not persuasive. The tubular collar is part of the commutator as discussed above. Takeda literally recites on page 10 that the "magnet sensor 33, shaped like a ring, is fitted and fixed around the rotating shaft 17 at a location of the opening in the housing 11....the magnet sensor is fastened around the rotating shaft 17 utilizing the tubular collar 21". It is inherent that the mating surfaces of the magnet and the annular recess on the tubular collar is an attachment feature to attach the magnet and commutator body. The claim does not recite what type of attachment feature is required, therefore the rejection is proper and should be maintained.

Claim 11

Appellant's argument that the Claim 11 is allowable because Claim 1 is allowable is not persuasive for the reasons set forth above. Appellant's argument that it is not obvious to combine the references is not persuasive. Knappe teaches the elastic clip

41 to secured the magnet 3 to the shaft 2 by the body 4 to secure the magnet without undue pressure and stress to the magnet (col. 2, line 25). Knappe teaches the magnet is held by the magnet body without regards to brittleness of the magnet (col. 2, line34). Knappe teaches the magnet is fixed without cement (col. 2, line 36). It would have been obvious to a person of ordinary sill in the art to fix the magnet to the tubular collar of Takeda with the elastic clips of Knappe to secure the magnet without cement, regards to the brittleness of the magnet, or without undue stress or pressure on the magnet as taught by Knappe.

(11) Related Proceedings Appendix

Copies of the court or Board decisions identified in the Related Appeals and Interferences section of this examiner's answer are provided in the filed wrapper dated 3/4/2005.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,
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PRIMARY EXAMINER

Karl I.E. Tamai

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Appeal Conference: 04/03/2006

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